UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450

# NOTICE OF ALLOWANCE AND FEE(S) DUE

026304

7590

02/23/2004

KATTEN MUCHIN ZAVIS ROSENMAN 575 MADISON AVENUE NEW YORK, NY 10022-2585

**EXAMINER** 

HOANG, QUOC DINH

ART UNIT

PAPER NUMBER

2818

DATE MAILED: 02/23/2004

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/083,440	02/26/2002	Takeo Ushiki	NEKW 19.480	6474

TITLE OF INVENTION: SURFACE CONTAMINATION ANALYZER FOR SEMICONDUCTOR WAFERS, METHOD USED THEREIN AND PROCESS F FABRICATING SEMICONDUCTOR DEVICE

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1330	\$300	\$1630	05/24/2004

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATEN PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHT THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPO PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM TH MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOV REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (O AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WIL BE REGARDED AS ABANDONED.

#### **HOW TO REPLY TO THIS NOTICE:**

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status is changed, pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above and notify the United States Patent and Trademark Office of the change in status, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status before, or is n claiming SMALL ENTITY status, check the box below and enclo the PUBLICATION FEE and 1/2 the ISSUE FEE shown above.
  - ☐ Applicant claims SMALL ENTITY status. See 37 CFR 1.27.
- II. PART B FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) w your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should completed and an extra copy of the form should be submitted.
- III. All communications regarding this application must give the application number. Please direct all communications prior to issuance Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

#### PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail

Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

(703) 746-4000 or Fax INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 4 should be completed wh appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" maintenance fee notifications. CURRENT CORRESPONDENCE ADDRESS (Note: Legibly mark-up with any corrections or use Block 1) Note: A certificate of mailing can only be used for domestic mailings of Fee(s) Transmittal. This certificate cannot be used for any other accompany papers. Each additional paper, such as an assignment or formal drawing, m have its own certificate of mailing or transmission. 02/23/2004 026304 7590 KATTEN MUCHIN ZAVIS ROSENMAN Certificate of Mailing or Transmission I hereby certify that this Fee(s) Transmittal is being deposited with the Un States Postal Service with sufficient postage for first class mail in an envel addressed to the Mail Stop ISSUE FEE address above, or being facsim transmitted to the USPTO, on the date indicated below. 575 MADISON AVENUE NEW YORK, NY 10022-2585 (Depositor's na (Signat (D APPLICATION NO. FILING DATE FIRST NAMED INVENTOR ATTORNEY DOCKET NO. CONFIRMATION NO. **NEKW 19.480** 10/083,440 02/26/2002 Takeo Ushiki 6474 TITLE OF INVENTION: SURFACE CONTAMINATION ANALYZER FOR SEMICONDUCTOR WAFERS, METHOD USED THEREIN AND PROCESS F FABRICATING SEMICONDUCTOR DEVICE **PUBLICATION FEE** TOTAL FEE(S) DUE APPLN. TYPE SMALL ENTITY ISSUE FEE DATE DUE NO \$1330 \$300 \$1630 05/24/2004 nonprovisional **EXAMINER** ART UNIT **CLASS-SUBCLASS** HOANG, QUOC DINH 2818 438-014000 1. Change of correspondence address or indication of "Fee Address" (37 2. For printing on the patent front page, list (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required. attorneys or agents. If no name is listed, no name will be printed. 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type) PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. Inclusion of assignee data is only appropriate when an assignment been previously submitted to the USPTO or is being submitted under separate cover. Completion of this form is NOT a substitute for filing an assignment. (A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY) Please check the appropriate assignee category or categories (will not be printed on the patent); ☐ individual a corporation or other private group entity ☐ governm 4a. The following fee(s) are enclosed: 4b. Payment of Fee(s): ☐ Issue Fee A check in the amount of the fee(s) is enclosed. ☐ Payment by credit card. Form PTO-2038 is attached. ☐ Publication Fee ☐ Advance Order - # of Copies \_ ☐ The Director is hereby authorized by charge the required fee(s), or credit any overpayment Deposit Account Number (enclose an extra copy of this form). Director for Patents is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. (Authorized Signature) (Date) NOTE; The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Alexandria, Virginia 22313-1450.

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## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 149 day(s). If the issue fee is paid on the date that is three months after t mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a ha months) after the mailing date of this notice, the Patent Term Adjustment will be 149 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date th determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retriev (PAIR) system (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office Patent Legal Administration at (703) 305-1383. Questions relating to issue and publication fee payments should directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

	Application No.	Applicant(s)	
	10/083,440	USHIKI ET AL.	
Notice of Allowability	Examiner	Art Unit	
	Quoc D Hoang	2818	
The MAILING DATE of this communication appearance All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT R of the Office or upon petition by the applicant. See 37 CFR 1.313	(OR REMAINS) CLOSED in or other appropriate commits in the commits of the commits	n this application. If not include unication will be mailed in due	led course. THIS
1. This communication is responsive to <u>07/07/2003</u> .			
2. X The allowed claim(s) is/are 16-21.			
3. $\boxtimes$ The drawings filed on <u>26 February 2002</u> are accepted by the	he Examiner.		
<ul> <li>4.  Acknowledgment is made of a claim for foreign priority ur</li> <li>a)  All b)  Some* c)  None of the:</li> <li>1.  Certified copies of the priority documents have</li> <li>2.  Certified copies of the priority documents have</li> <li>3.  Copies of the certified copies of the priority do International Bureau (PCT Rule 17.2(a)).</li> <li>* Certified copies not received:</li> </ul>	e been received. e been received in Application	on No	ation from the
Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONN THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.	MENT of this application.		
5. A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give	itted. Note the attached EX es reason(s) why the oath o	AMINER'S AMENDMENT or I or declaration is deficient.	NOTICE OF
6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must (a) ☐ including changes required by the Notice of Draftspers 1) ☐ hereto or 2) ☐ to Paper No./Mail Date  (b) ☐ including changes required by the attached Examiner' Paper No./Mail Date  Identifying indicia such as the application number (see 37 CFR 1 each sheet. Replacement sheet(s) should be labeled as such in the sheet in the sheet in the sheet is sheet in the sheet in the sheet in the sheet is sheet in the sheet in the sheet in the sheet is sheet in the sheet i	son's Patent Drawing Revie s Amendment / Comment o .84(c)) should be written on t	r in the Office action of the drawings in the front (not th	e back) of
7. DEPOSIT OF and/or INFORMATION about the depo attached Examiner's comment regarding REQUIREMENT	sit of BIOLOGICAL MAT FOR THE DEPOSIT OF BI	ERIAL must be submitted. OLOGICAL MATERIAL.	Note the
<ul> <li>Attachment(s)</li> <li>1. ☑ Notice of References Cited (PTO-892)</li> <li>2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)</li> <li>3. ☑ Information Disclosure Statements (PTO-1449 or PTO/SB/C Paper No./Mail Date 2&amp;5/02</li> <li>4. ☐ Examiner's Comment Regarding Requirement for Deposit</li> </ul>	6. ☐ Interview S Paper No. 7. ☑ Examiner's	nformal Patent Application (PT Summary (PTO-413), /Mail Date s Amendment/Comment s Statement of Reasons for All	
of Biological Material	9. Other		
Supervio	David Nelms sory Patent Examiner ology Center 2800		

### **DETAILED ACTION**

### Election/Restrictions

1. Applicant's election without traverse of Group II, claims 16-21 in Paper No. 0703 is acknowledged.

## Priority

2. Acknowledgment is made of applicant's claim for foreign priority base on an application 2001-58075 filed in Japan on 03/02/2001.

It is noted that Applicants have filled a certified copy of said application as required by U.S.C 119, which papers have been placed of record in the file.

### Information Disclosure Statement

3. Information Disclosure Statement (IDS) filed on 2/26/2002 and 5/20/2002 and made of record as Paper No. 2/2002 and 5/2002. The references cited on the PTOL 1449 form have been considered.

### Examiner's Amendment

4. An examiner's amendment to the record appears below. Should any changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Markowitz on February 4, 2004.

- cancel claims 1-15.

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- In claim 16, line 3, changing "said semiconductor water" into --an semiconductor wafer--.

- In claim 16, line 9, changing "the amount" into --an amount--.
- In claim 16, line 11, changing "the amount" into --an amount--.

### Allowable Subject Matter

5. Claims 16-21 are allowed.

The following is an examiner's statement of reasons for allowance: Claims 16-21 are allowable over the prior art of record because none of the prior art whether taken singularly or in combination, especially when these limitations are considered within the specific combination claims, to teach comparing the amount of current flowing out from the target region with the amount of reference current flowing out from a region of a reference wafer.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

### Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quoc Hoang whose telephone number is (571) 272-1780. The examiner can normally be reached on Monday-Friday from 8.00 AM to 5.00 PM.

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If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571) 272-1787. The fax phone numbers of the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Quoc Hoang Patent examiner/AU 2818

David Nelms
Supervisory Patent Examiner
Technology Center 2800